

**LIQUID CRYSTAL FLAT PANEL DISPLAY DEVICE**

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**Abstract**

**PURPOSE:** To provide an electrooptic address assigning device with decreased crosstalk effect by incorporating a liquid crystal material showing such frequency reactivity that the dielectric anisotropy for the signal frequency higher than the critical frequency is almost zero.

**CONSTITUTION:** The line electrode 20 is formed on the principal plane of a non-conductive light transmitting substrate 24, and a groove 22 is formed on the principal plane of the second nonconductive light transmitting substrate 26. A layer 28 consisting of a frequency-reactive electrooptical material such as two-frequency nematic liquid crystal is interposed between a first nonconductive light transmitting substrate 24 and a second nonconductive light transmitting substrate 26. In this constitution, it is preferable that the dielectric anisotropy  $\Delta\epsilon$  of the frequency-reactive liquid crystal material in the layer 28 is rather small for the signal frequencies higher than the specific frequency  $f_{th}$ , and more preferably, almost zero. Thereby, the frequency-reactive liquid crystal material does not substantially react with signals having higher frequencies than the critical frequency. This device includes a data driver which sends reversed data signal in a first period and non-reversed data signal in the second period to each picture element.

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